Department of Defense Pre-positioning Programs:

A Springboard for Deployments

A Monograph

by

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Academic Year 03-04

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MONOGRAPH APPROVAL

LTC(P) Melinda S. Woodhurst

Title of Monograph: Department of Defense Pre-positioning Programs: A Springboard for Deployments

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Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
26 MAY 2004		**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Department of Defense pre-positioning programs: a springboard for deployments	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
Melinda Woodhurst	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
US Army School for Advanced Military Studies,250 Gibbon Ave,Fort Leavenworth,KS,66027	**ATZL-SWV**
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

The original document contains color images.

14. ABSTRACT

The Global War on Terrorism (GWOT), asymmetrical warfare, and globalization spell uncertainty, and strategic responsiveness can be the key to winning our nations wars The US defense strategy requires pre-positioning posture to enable faster force closure and be more flexible; more expeditionary; more survivable against anti-access threats; more joint and supportive of emerging joint warfighting concepts; and consistent with new DOD basing initiatives. Since the mid-1970's, the Department of Defense has relied on military pre-positioning programs as a means to project combat power. The equipment content of these programs and the Services' pre-positioning concepts are reflective of a Cold War strategy: a European-focused theater, engagement and forward basing, and conventional warfare against a predictable adversary. Post 9-11 events reflect a change from a predictable enemy to an unpredictable enemy, thus dictating the need for DOD to re-look how they employ their pre-positioning concepts. Predominantly, the pre-positioning concepts are service specific and lack joint integration, joint doctrine, and joint training. Joint pre-positioning begins with developing common operation and logistics systems. Beginning with command and control, DOD must identify a command and control structure (C2) capable of integrating the capabilities of all the services. From determining and developing common user parts, to asset visibility, to over all theater distribution, DOD must resource ways to integrate service pre-positioning concepts into a joint integrated program that is "plug and play". The Army must redesign the contents of its pre-positioned unit sets to provide modern, state of the art equipment in modular sets focused on capabilities. Adding Objective Force (OF) equipment offers a means to provide a lethal force quickly into an area of operations and minimizes the strategic lift resources. DOD must invest in capability packages that are pre-positioned afloat and dispersed them geographically. Additionally, DOD can foster a partnership of "share security" by designing a joint exercise program that offers an opportunity for joint forces to draw and employ these packages in areas of political interests to US. Pre-positioning is an integral part of our National Military Strategy. Through a power projection capability, pre-positioning equipment and materiel can offer a wide range of options ranging from military combat operations to humanitarian assistance. Pre-positioning programs serve as a springboard for deployments.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**1**	**63**	

ABSTRACT

DEPARTMENT OF DEFENSE PRE-POSITIONING PROGRAMS: A SPRINGBOARD FOR DEPLOYMENTS by Lieutenant Colonel (P) Melinda S. Woodhurst, USA, 55 pages.

The Global War on Terrorism (GWOT), asymmetrical warfare, and globalization spell uncertainty, and strategic responsiveness can be the key to winning our nations wars The US defense strategy requires pre-positioning posture to enable faster force closure and be more flexible; more expeditionary; more survivable against anti-access threats; more joint and supportive of emerging joint warfighting concepts; and consistent with new DOD basing initiatives.

Since the mid-1970's, the Department of Defense has relied on military pre-positioning programs as a means to project combat power. The Army's pre-positioning program has three land (APS-2, APS-4, APS-5) and one set pre-positioned afloat (APS-3), containing five combat maneuver brigades and sustainment stocks. Marine Corps Maritime Pre-positioning Force (MPF) and the Maritime Pre-positioning Ship (MPS) Program contain three maritime preposition squadrons (MPSRONS) afloat, and a land-based pre-position assets in Norway (NALMEB). The Navy is a predominantly a forward-positioned, forward-deployed force, and pre-positions various classes of supply, logistics capabilities, combat engineering force equipment (SeaBees), and combat hospitals. The Air Force's pre-positions materiel as Starter Stocks, Swing Stocks, and as Stocks and Standard Air Munitions Packages (STAMP), consisting of five categories: Basic Expeditionary Airfield Resources (BEAR) equipment, consumables, vehicles, and medical.

The equipment content of these programs and the Services' pre-positioning concepts are reflective of a Cold War strategy: a European-focused theater, engagement and forward basing, and conventional warfare against a predictable adversary. Post 9-11 events reflect a change from a predictable enemy to an unpredictable enemy, thus dictating the need for DOD to re-look how they employ their pre-positioning concepts. Predominantly, the pre-positioning concepts are service specific and lack joint integration, joint doctrine, and joint training.

Joint pre-positioning begins with developing common operation and logistics systems. Beginning with command and control, DOD must identify a command and control structure (C2) capable of integrating the capabilities of all the services. The Enhanced Networked Seabasing concept offers a C2 structure afloat with the Navy, lending platforms to the Army and Marines for conducting ship downloads in areas where foreign nationals deny the US access to air- and sea ports. From determining and developing common user parts, to asset visibility, to over all theater distribution, DOD must resource ways to integrate service pre-positioning concepts into a joint integrated program that is "plug and play". The Army must redesign the contents of its pre-positioned unit sets to provide modern, state of the art equipment in modular sets focused on capabilities. Adding Objective Force (OF) equipment offers a means to provide a lethal force quickly into an area of operations and minimizes the strategic lift resources. The Air Force must reduce it dependence on large forward basing by pre-positioning its BARE base equipment and critical munitions afloat or by relocating current storage sites to new geographical areas of interest to the US. DOD must invest in capability packages that are pre-positioned afloat and dispersed them geographically. Additionally, DOD can foster a partnership of "share security" by designing a joint exercise program that offers an opportunity for joint forces to draw and employ these packages in areas of political interests to US.

Pre-positioning is an integral part of our National Military Strategy. Through a power projection capability, pre-positioning equipment and materiel can offer a wide range of options ranging from military combat operations to humanitarian assistance. Pre-positioning programs serve as a springboard for deployments.

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Introduction

> DOD must develop the ability to integrate combat organizations with forces capable of responding rapidly to events that occur with little or no warning.[1]
>
> Quadrennial Defense Review, September 2001

The National Security Strategy (NSS) is the President's vision and guidance concerning the continued security and prosperity of the United States. Throughout the past two decades, the United States has transitioned its NSS from a Cold War strategy of containing communism to a post-Cold War strategy of global security. Simplistically stated, the national strategy evolved to reflect the dynamics of a new threat: the transition from a predictable adversary to an adversary capable of bringing great chaos and suffering for less than the price of a single tank.[2] Secretary Rumfeld's comment in the Forward of *Joint Operations Concepts, Joint Vision 2020* reiterates his concerns for uncertainty and ever-changing characteristics of the global threat:

> We do not know the face of our adversary or the exact method of engagement. The threat may come from terrorists, but it could come in the form of cyber-war, a traditional state-on-state conflict, some entirely new form of attack, or it may take the form of a natural or man-made disaster. This uncertainty requires us to move away from our past threat-based view of the world and force development.[3]

It is through the National Military Strategy that the Joint Staff and the Regional Combatant Commanders articulate the strategic direction for achieving the President's national strategy. Our nation's command authority has consistently sought ways to protect the security of America, Americans abroad, and geographic areas we consider of national interest through forward basing of strategic assets and through our ability to project military power. For more than a decade, forward basing and power projection has been an integral element of the National Military Strategy. Looking back to 1997,

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[1]Secretary of Defense Donald H. Rumsfeld, *Quadrennial Defense Review Report*, (Washington D.C.: DOD Printing Press, September 2001), 32. Also available from: http://defenselink.mil/pubs/qdr2001.pdf

[2]President George W. Bush, *The National Security Strategy of the United States of America*, (Washington D.C.: The White House Printing Press, 2002, Forward.

[3]Secretary of Defense Donald H. Rumsfeld, *Joint Operations Concepts*, Nov 2003, Secretary's Forward.

President Clinton's NSS of *"imperative of engagement"* and the Chairman of the Joint Chiefs of Staff's National Military Strategy of "*Shape, Respond, and Prepare Now"* highlight the national objective of remaining globally engaged. Global engagement includes the capacity to respond to the full spectrum of crises through a demonstrated ability to respond rapidly. Complementing overseas presence, power projection strives for unconstrained global reach.[4] Being able to project power means being able to act even when we have no permanent presence or infrastructure in a region.[5] The basic elements of the national strategy since this era have changed little, except for the changes made post-9/11 with the addition of "preemptive" attacks to prevent use of weapons of mass destruction (WMD) inclusive in the strategies for Homeland Security and Global War On Terrorism.

Freedom, democracy, and free enterprise represent the model of success by championing measures to protect basic human rights and possessing the capability to project power anywhere in the world.[6] According to Secretary Rumsfeld, "transforming the military requires rapidly deployable, fully integrated joint forces, capable of reaching distant theaters quickly and working with our air and seas forces to strike adversaries with devastating effect."[7] "This includes the capacity to conduct force entries--the establishment of a military lodgment on foreign territory even without the benefit of access to infrastructure in friendly countries in the region. Effective and efficient global power projection is the key to the flexibility demanded of U.S. forces and ultimately provides national leaders with more options in responding to potential crises and conflicts."[8]

Since the mid-1970s, the Department of Defense has relied on military pre-positioning programs as a means to project combat power. From Return of Forces to Germany, (REFORGERs), to rotations to Combat Training Centers (CTC), to contingency deployments, our military has used pre-positioned

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[4]Ibid, page 15
[5]Ibid, page 16.
[6]Bush, NSS, 1.
[7]Donald H. Rumsfeld, "Transforming the Military," *Foreign Affairs,* May-June 200, 27.

stocks/equipment as a means to reduce the requirements of rail, air, and sea movements thus ultimately maximizing the use of strategic lift. OPERATION PROVIDE HOPE, OPERATIONS DESERT SHIELD AND DESERT STORM, and OPERATION IRAQI FREEDOM are recent examples of Department of Defense's heavy reliance on pre-positioning equipment as a means to project large conventional Army, Air Force and/or Marine forces quickly into a theater of war. CONUS Contingency Reaction Force (CCRF) rotations to Camp Doha, Kuwait and Brigade Combat Team (BCT) rotations to the National Training Center (NTC) are examples of recurring events that provide the Army with an opportunity to use of pre-positioned equipment. Exercise Freedom Banner, Native Fury and United States European Command (USEUCOM) Maritime Pre-positioning Force (MPF) are examples of recurring events that provide the Marine Corps with an opportunity to pre-positioned equipment.

The Global War on Terrorism (GWOT), asymmetrical warfare, and globalization spell uncertainty, and strategic responsiveness can be the key to winning our nations wars. While the Department of Defense can deliver equipment and personnel by sea and by air, these assets are limited and require intense management. The themes of Secretary Rumsfeld's vision are modular, expeditionary, and joint force capabilities. To that end, the Department of Defense must resource ways to be more effective and efficient with strategic assets when projecting forces to meet global requirements, recognizing that speed is only one measure of strategic responsiveness. Secretary Rumsfeld states, "The unparalleled strength of the United States armed forces, and their forward presence, have maintained the peace in some of the world's most strategically vital regions. However, the threats and enemies we must confront have changed, and so must our forces."[9]

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[8]William S. Cohen, "Annual Report to the President and the Congress, Part 1: STRATEGY." *The Military Requirements of the Defense Strategy*, 2001,21, http://www.denfenselink.mil/execsec/adr2001/index.html

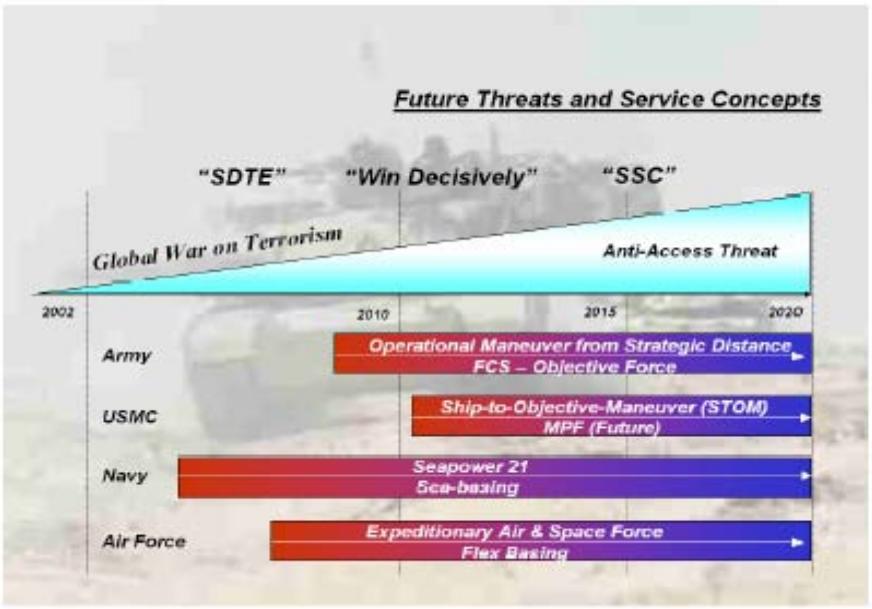

Figure 1: Future Threats and Service Concepts[10]

As the Department of Defense fights its way through transformation, do the Services' Pre-positioning Programs reduce the strain placed on strategic air and sealift assets? Do these programs meet the intent of power projection? Are these programs the strategic springboards for deployments? Can the existing pre-positioning programs transcend the maelstrom of transformation? Are our military forces properly trained on the content, procedures for use and use of these programs? This paper answers these questions. First, however, it is necessary to outline the Air Force, Army, and Navy/Marines pre-positioning programs in order to establish a commonality of terms and concepts. Chapter 2 provides a brief summary of the historical establishment of the Services' pre-position programs, the Serivces' employment strategy, and a description of their pre-OPERATION IRAQI FREEDOM (OIF) content and location or locations.

Chapter 3 demonstrates the power of military pre-positioning programs by examining the positive and negative effects it has on strategic lift requirements. This analysis compares and contrasts the

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[10]Logistics Management Institute, *Strategies for Worldwide Pre-positioning*, August 2003, 2-8. Emailed to author from JS J4 on 23 March 2004.

strategic air- and sealift assets used by the Army in three contingency operations and offers an analysis for options for including Objective Force (OF) modules into the pre-positioning concept. Lastly, this chapter summarizes the strategic lift requirements need to support the MEF during Operation Desert Shield and Desert Storm. Chapter 4 assesses the current contents, composition, and forward basing of this equipment to determine if the current program meets Secretary Rumsfeld's vision of future operations in an era of transformation. Specifically, it is relevant to discuss land and sea basing pre-positioning concepts in terms of "faster force closures" from an "expeditionary and joint warfighting" capability. Chapter 5 assesses Department of Defense's training programs for educating the force on the purpose, content, and doctrinal procedures for using any one of the Department of Defense's pre-positioned equipment sets. Chapter 6 concludes with recommendations for the future of joint pre-positioning programs in an era of transformation. This assessment does not discuss life cycles cost analysis nor an assessment of fiscal dollars required to resource these programs. Whether or not the military pre-positioning program is or is not cost effective is not the focus of this paper. Nor does this analysis provide any philosophical discussions on whether pre-positioning programs provide the ***"best"*** means of power project. Perhaps an Operational Research and Studies Analyst (ORSA)-trained person can determine if these programs are cost-effective. "Successful response to regional contingencies depends upon sufficient strategic mobility to deploy combat forces rapidly."[11] The intent of this paper is to determine if the existing pre-positioning programs do in fact provide a viable means of power projection as a means to maximize strategic lift and increase strategic response in an era of transformation.

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[11]Joint Publication 4-01.2, *Joint Tactics, Techniques and Procedures for Sealift Support to Joint Operations*, 9 October 1996, vii.

Chapter 2

Department of Defense Pre-positioning Programs

Mobility is the true test of a supply system.[12]

Captain Sir Basil Liddel Hart, Thoughts on War, 1944

Joint Publication 4-01 provides a definition of pre-positioning as follows: "the Department of Defense pre-position force, equipment, or supplies (PREPO) programs are both land- and sea-based. Pre-positioning programs are critical for rapid force buildups and it contributes to deterrence, reinforces forward presence objectives, and supports the global war on terrorism. It serves as a means to leverage options in an unpredictable environment. Pre-positioning programs are critical for reducing closure times of combat and support forces needed in the early stages of a contingency. They also contribute significantly to reducing demands on the Defense Transportation System."[13]. Although the focus of this paper is to view DOD pre-positioning programs at the joint level, it is necessary to define each Service's program[14]. For clarity, this chapter summarizes the Service's pre-position programs in terms of historical establishment, strategy for use, content and location or locations.

BACKGROUND.

The origin of the pre-position concept began as a means for Department of Defense to cope with budget reductions, to return forces from overseas bases and to support a national strategy of projecting combat power quickly and seamlessly anywhere in the world. In the mid-1970s, Department of Defense established Pre-position of Materiel Configured in Unit Sets (POMCUS) sites in Germany and Theater Reserve in Unit Sets/Army Readiness Package South (TRU/ARPS) in Italy as a means to pre-position

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[12]JP 4-01, *Joint Doctrine for the Defense Transportation System*. (Washington, D.C.: Government Printing Press, 19 March 2003, III-1

[13]Ibid, III-14.

land-based equipment for the Army. The Marine Corps titled its pre-position program the Maritime Pre-positioning Force (MPF) and the Air Force titled its pre-positioning program the War Reserve Materiel (WRM). The Navy has pre-positioned equipment and supplies both afloat and on land, but does not currently have an over-arching title for their pre-positioning program. The Navy

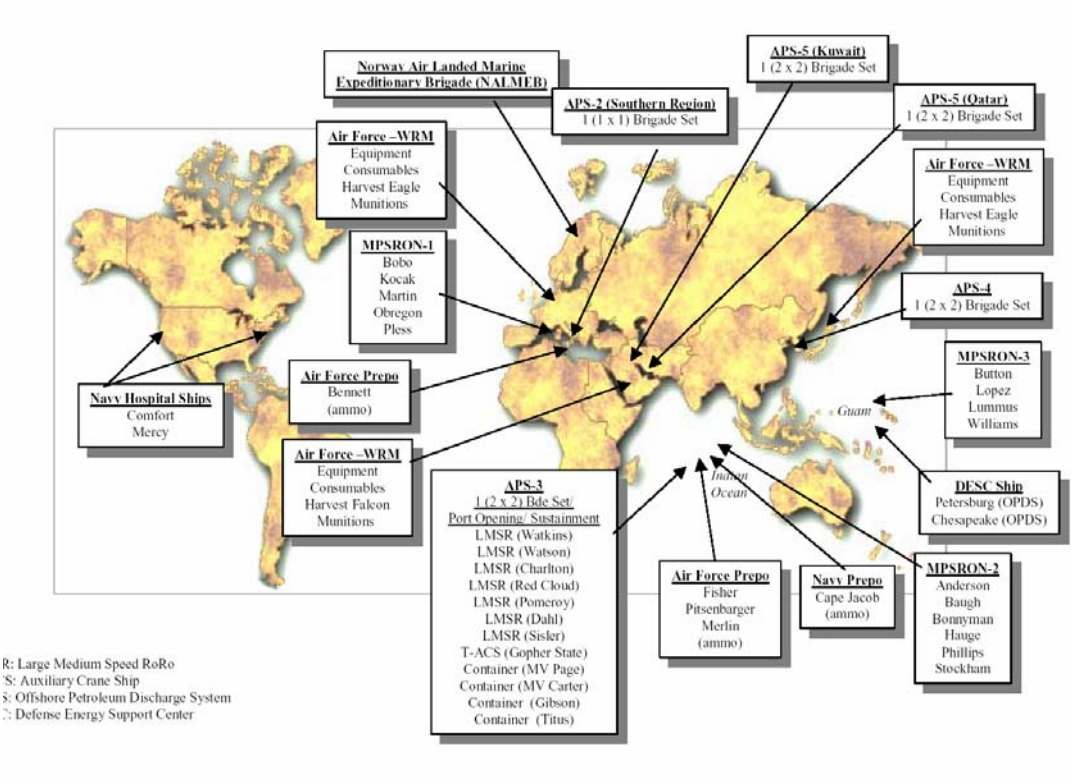

Figure 2: DOD Pre-positioning Program[15]

divides its pre-position program into two categories: munitions and hospitals. The U.S. Army and U.S. Marine Corps pre-positioning programs consist of combat, combat support, and combat service support capabilities, to include in-stream discharge and Joint Logistics Over the Shore (JLOTS)

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[14] This monograph did not cover the pre-positioning equipment or materiel in support of Special Operations, nor did it cover the changes required for Reserve Component units. These topics are valid, but exceeded the scope of this monograph.

[15] LMI, 3-1.

capabilities.[16] Other Service and Defense Logistics Agency (DLA) preposition programs are logistics oriented.[17] The following paragraphs will summarize each of the Service's program. While Joint Publication 4-01 provides a very detailed description of each Service program, my intent is to provide a basic, but brief, summary characterizing their development and general description of their content and location or locations.

> We are more and more an expeditionary force; strategic air and sealift complemented by our pre-positioning initiatives, must be our number one priority.[18]
>
> General John M. Shalikashvili, Chairman, Joint Chiefs of Staff,1995

U.S. ARMY.

History and Strategy for Employment.

Lessons learned from the Berlin Crisis in 1948, Operation Big Lift of 1961, and the London Tripartite Agreements of 1967 created the need for POMCUS and the REFORGER exercises.[19] Post Cold strategies dictated the need to reduce US force structure, reduce forward-deployed forces, and rely more on CONUS-based contingency forces. Power projection became the focus of US military strategy. The centerpiece of this new philosophy is rapid force projection from CONUS, or other, outside CONUS locations to meet the growing regional threats and crises. For the Army, in the mid-1970s, DOD established programs such as Army Pre-positioned Land (APL), and Army Pre-positioned Afloat (APA). In 2004, the terms for Army Pre-positioning programs remain somewhat the same except the renaming of APA to Army Regional Flotilla Concept or APF. The programs formerly known as POMCUS and TRU/ARPS evolved to Army Pre-positioned Stocks (APS) when the configuration of these programs changed from configured sets for a specified unit, such as the case for units participating in Return of

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[16]JP 4-01, *Joint doctrine for the Defense transportation System*, 19 March 2003, III-15

[17]Ibid, III-16.

[18]FM 100-17-2, "Chapter 1 – Fundamentals of Army Pre-positioned Land Operations," *Army Pre-positioned Land*, (Washington, D.C.: Government Printing Office), 16 February 1999, 1-1.

[19]Gary M. Gentry., LTC., USA. *"Planning Considerations for the Use of Prepositioning of Materiel Configured to Unit Sets."* Monograph, (Fort Leavenworth, KS: SAMS/CGSC Printing, 1992), 2.

Forces to Germany (REFORGER), to configured sets stored worldwide and issued to units whenever or wherever needed.[20] OIF provides the most recent example for transferring individual equipment pieces from one APS set to fill shortages of other sets. Other examples include the transfer of 16,683 pieces of pre-positioned equipment shipped to the Balkans in support of SFOR (Bosnia) and 10,687 pieces of pre-positioned equipment shipped to Kosovo.[21] Following Desert Storm, the Department of the Army (DA) consolidated all Army war reserve stocks…into five regional materiel stockpiles: CONUS, Europe, Pacific, Southwest Asia and Afloat.[22] DA, then, established the Army War Reserve Support Command (AWRSPTCMD) to serve as the centralized executing agent for all APS.

Unit Designator*	Afloat or Ashore	Location	Capability
APS-2	Ashore	Europe	1X1 BDE (-)
APS-3	Afloat	Diego Garcia	4 battalion task forces; equivalent to a 2X2 composite brigade. CS/CSS units.**
APS-4	Ashore	Korea	2X2 BDE
APS-5	Ashore	SWA	2X2 BDE and division base in Qatar; 2X2 BDE in Kuwait

* APS 1 consists of equipment stocks and supplies stored in CONUS. According to the definition of "pre-positioning" used in this study, these stocks are not pre-positioned since they are not located overseas or near the employment area.

** Immediately prior to OIF, APS-3 was pre-positioned on 13 ships: 1 ship for each of the four battalion task forces; four ships of CS/CSS unit equipment; two sustainment ships; two ammunition ships and an auxiliary crane ship. This force will likely change as the Army restructures APS-3 as the result of OIF.

Figure 3: Army Pre-positioned Capabilities Pre-OIF[23]

Content.

The Army's APS program has both land and sea components and consists of stocks in three categories: unit equipment sets, operational stocks, and sustainment stocks.[24] The unit equipment sets, (known as APS-2, APS-3, APS-4, and APS-5) contain five combat maneuver brigades consisting of two

[20]Ibid, 1-6.
[21]LMI, 1-3.
[22]Global Security.org, US Army Field Service Support Command (FSC) [ex US Army War Reserve Support Command (AWRSPTCMD)], 10 Aug 2003, 1, http://www.globalsecurity.org/military/agency/army/fsc.htm
[23]LMI, 3-5.
[24]FM 100-17-2 defines unit sets of pre-positioned organizational equipment as end items, supplies, and secondary items stored in unit configurations (brigade, division and corps/echelon above corps). Sustainment stocks consist of major end items, ammunition and war reserve items.

armor battalions and two infantry battalions, commonly called 2 X 2 brigades. The centerpiece of the program is its combat weapons systems including Abrams Tank (M1A1), Bradley Fighting Vehicle (M2A2), Multiple Launch Rocket (M270), Cavalry Fighting Vehicle (M3A2), Mortar Carrier (M1064A3) and the Paladin Howitzer (M109A6). Although Army Materiel Command owns the equipment and is responsible for its accountability and maintenance, Department of the Army manages and authorizes the use of this equipment. Operational project stocks, called APS-1, contain strategic capabilities essential to the Army's ability to project combat power. Operational project stocks are materiel above normal TOE and TDA, and consist of 14 projects including: Aerial Delivery, Aircraft Matting, Bridging, Collective Support Systems—Force Provider Modular Support System, CONUS Replacement Centers—clothing and individual equipment, Enemy Prisoner of War (EPW) Equipment and Supplies, Hot and Cold Weather Clothing, Inland Petroleum Distribution System (IPDS), and logistics materiel to support JTF/DA—equipment for AMC logistics assistance representatives (LAR). Operational project stocks are pre-positioned in various locations in CONUS with tailored portions or packages pre-positioned overseas and afloat. War reserves stocks consist of major end items (i.e., tanks and trucks), ammunition, and war reserves (clothing and individual equipment, packaged petroleum, construction and barrier materiel, medical materiel, and repair parts).[25]

The components of APA are two heavy brigade equipment sets, 30 days of logistics sustainment stocks for both combat operations and humanitarian relief operations, substantial ammunition reserves, port opening packages and JLOTs capabilities.[26] Additionally, hospitals, inland pipeline distribution systems, packed airdrop for light division resupply, Ranger resupply, special operations forces equipment,

[25]Scotty Allison, LTC, USA, *Pre-positioned Stocks (APS)*, Information Brief to MGChristianson, US Army G4, on 20 August 2003.

[26]JP 4-01, III-15.

mortuary affairs materiel, bridging equipment, portable Army airfields, sustainment stocks and 36 Force Provider modules.[27]

Locations.

The locations for the five APS sets are: APS-1 (CONUS), APS-2 (Europe), APS-3 (afloat in the Indian Ocean), APS-4 (Korea), and APS-5, (Southwest Asia). According to Field Manual 100-17-2, "The land-based Army pre-position stocks (APL) allow the early deployment of a heavy brigade in Korea, Europe, or Southwest Asia by C+4."[28] The lead Division [must close] by C+12 and two heavy divisions (sealifted) arrive from CONUS by C+30…and the full Corps (five Divisions and a COSCOM) closes by C+75.[29] According to Field Manual 100-17-1, APA provides the Combatant Commander with critical weapons systems, equipment, and supplies common to all theaters. APA is the expanded reserve of equipment for an armor brigade, theater-opening CS/CSS units, port-opening capabilities, and sustainment stocks abroad forward deployed pre-positioned afloat ships.

Army Materiel Command (AMC) was challenged to field the Pre-OIF APL and APA programs. Funding, maintenance, and command and control (C2) of these programs were insufficient at best. Although DoD funding for pre-positioned programs range in the billions of dollars, OIF substantiated that existing funding levels were insufficient to completely outfit a heavy division and its echelons above division (EAC) support slices. Although 3rd ID (Mech) eventually and successfully drew and operated with more than 70% of its authorized modified tables of allowance (MTOE) from APS-3 and APS-5, the remaining 30% of the required equipment came from the transfer of equipment from other APS sets, from home station or from micro-managed maintenance return programs. This lack of visibility for predicting maintenance returns created confusion and hindered the Reception, Staging, Onward movement and Integration of combat forces flowing through Camp Doha, Kuwait. Lastly, the Commander of

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[27]Ibid, III-16.
[28]FM 100-17-2, 1-1.

ARCENT-Kuwait and his Director of Logistics (DOL) shared command and control (C2) of APS 5 with the Defense Logistics Agency and his Combat Equipment Battalion (CEB) Commander. With the former responsible for maintaining the equipment and the latter responsible for accounting for the equipment, it was common for neither to know the status of the equipment causing 3ID (MECH) to deploy extra home station equipment unnecessarily.[30]

> Since men live upon land and not upon the sea, great issues between nations at war have always been decided--except in the rarest of cases--either by what your army can do against your enemy's territory and national life or else by the fear of what the fleet makes possible for your army to do.[31]
> Julian S. Corbett,1988

US NAVY.

History**.**

The Post-Cold War strategic pause led the Navy and Marine Corps to depend on forward presence of Naval Expeditionary Forces and Marine Expeditionary forces as a means to project power ashore. Afloat pre-positioning began in the early 1980s to improve the response time for the delivery of urgently needed equipment and supplies to a theater of operation.[32] The Military Sealift Command's (MSC) Pre-positioning Program is an essential element in the nation's "Forward...From the Sea" strategy.[33] Operational Maneuver from the Sea (OMFTS) became the centerpiece of Naval and Marine Doctrine, as the Marine Corps recognized it inability to respond rapidly to the 1979 Iranian hostage crisis. Although the Navy's pre-positioning programs are inclusive of the Marine Corps pre-positioning programs; this paper dedicates separate sections each for the Navy and the Marine Corps.

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[29]Ibid, 1-2.

[30]Louis W. Weber (BG, USA) and Melinda S. Woodhurst (LTC, USA), *After Action report (AAR) for 3ID reception, Staging, Onward Movement and Integration (RSOI)*, 17 March 2003, 2.

[31]Sir Julian Corbett, *Some Principles of Maritime Strategy* (Annapolis, MD: Naval Institute Press, 1988), 16., and MCDP3, Department of the Navy, Headquarters US Marine Corps, *Expeditionary Operations*, (Washington, D.C., 16 April 1998), 27.

[32]MSC homepage, http://www.msc.navy.mil, 1.

[33]Ibid, 1

Strategic Employment.

The Navy is predominantly a forward-positioned, forward-deployed force, and remains so within the framework of Sea Power 21.[34] The primary focus of the Navy in pre-positioning unit equipment and sustainment is to ensure the sustainment and expansion of naval forward presence without creating a large demand on strategic lift resources.[35] The Navy makes significant use of forward-located shore facilities throughout the world as, in effect; pre-positioning sites for various classes of supply and logistics capabilities—such as medical capabilities (unit sets and materiel) selected Class V munitions stocks.[36] Because of their size and difficulty in transporting, the Navy has identified a need to pre-position its fleet hospitals using both ashore and afloat platforms.[37]

Sea Strike	Sea Shield	Sea Basing
Persistent intelligence, surveillance, and reconnaissance	Homeland defense	Enhanced afloat positioning of joint assets
Time-sensitive strike	Sea/littoral superiority	Offensive and defensive power projection
Electronic warfare/information operations	Theater air missile defense	Command and control
Ship-to-objective maneuver	Force entry enabling	Integrated joint logistics
Covert strike		Accelerated deployment and employment timelines

Figure 4: Sea Power 21 Capabilities[38]

Content.

The Navy's pre-positioning equipment include capabilities not easily moved, i.e., air munitions, combat engineering force equipment (SeaBees), combat hospitals.[39] The Navy pre-positioned munitions include common components, i.e., bomb bodies, tails, and fins. Approximately fifty percent of the air munitions are pre-positioned afloat. The Fleet Hospital Program consists of 10 fleet hospitals totaling

[34] LMI, 3-14.
[35]Ibid, 3-14.
[36]Ibid, 3-14.
[37]Ibid, 3-14.
[38]Ibid, 3-13.

5,000 beds. All fleet hospitals are strategically positioned around the world ready for activation when needed in CONUS, afloat, or at host nation locations.[40] They are also an integral element of the Marine Corps' Maritime Pre-positioning Force (MPF), stationing a hospital ship with each Marine Corps MPSRON.

Locations.

The Navy's pre-positions munitions in 46 worldwide locations, including Greece, Italy, Norway, Spain, Diego Garcia, Guam, Japan, Korea, and afloat on MPS1, MPS2 and MPS3. The MPS ships are under the operational control of the Marine Corps, although the paid for by the Navy.

> Ever since the days of the Phoenicians, the ability to land on defended shores has been a source of strength for those who possess it and a source of concern for those who must oppose it.[41]
>
> LtCol (Retired) Merrill L. Bartlett

U.S. MARINE CORPS.

History.

As mentioned earlier, the Marine Corps' inability to respond rapidly to the 1979 Iranian hostage crisis led to an early 1980s development of a pre-position Amphibious Brigade's suite of combat equipment. By 1984, Department of Defense developed the Maritime Pre-positioning Force (MPF) Concept and the Maritime Pre-positioning Ship (MPS) Program, designed to facilitate the rapid deployment and assembly of a Marine Air Ground Task Force (MAGTF) in a secure area, using a combination of strategic lift and forward-deployed maritime pre-positioning ships.

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[39]OPNAVINST 8010.12F/MCO 8010.12, 28 March 2000, 3.
[40]Ibid, 3-14
[41]LtCol (Retired) Merrill L. Bartlett, Quoted in *Assault From the Sea on the History of Amphibious Warfare* (Annapolis, MD: US Naval Institute, 1983), xi and found in MCDP 3, Department of the Navy, Headquarters US Marine Corps, Expeditionary Operations, (Washington, D.C.: Government Printing Press, 1998), 86.

Employment Strategy.

The Marine Corps' contribution to operational maneuver from the sea is Ship to Objective Maneuver (STOM), and the future of Marine Corps power projection rests in an enhanced networked of seabasing (ENS) using carrier strike groups and expeditionary strike groups as the core elements.[42] The Marine Corps MPF divides into three squadrons and its pre-position mission equipment is aboard 15 ships. The Amphibious Brigade's suite of combat equipment includes 15 days of supply, aboard existing Military Sealift Command ships berthed at Diego Garcia.[43] Maritime pre-positioning provides the combatant commanders with deployment flexibility and increased national capability to respond rapidly to crisis or contingency with a credible force.[44] Strategically, MPF support two tenants of the National Maritime Strategy of "forward naval presence," and "sustainable crisis response."[45] The concept of maritime pre-positioning force operations is not an operating concept for conducting a particular expeditionary mission or category of missions. Instead it is as a deployment concept, …"a means of rapidly providing expeditionary capability…."[46]

Unit Designator	Afloat or Ashore	Location	Associated Forces
MPSRON One	Afloat	Mediterranean Sea	2d MEB, Camp LeJeune, NC
MPSRON Two	Afloat	Diego Garcia	1st MEB, Camp Pendleton, CA
MPSRON Three	Afloat	Guam and Saipan	3d MEB, Okinawa, JA
NALMEB	Ashore	Norway	2d MEB, Camp LeJeune, NC

Figure 5: USMC Pre-positioned Capabilities[47]

[42]LMI, 3-7.

[43]Albert A. Washington, "US Army and Marine Corps Maritime Pre-positioning: The Right Course for the 21st Century?", *Defense Maritime Pre-positioning Force Operations"*, Washington DC, September, 1993, 1-1., and Gregory C. Reuss, *Son of Maritime Pre-positioning Force*, Monograph, (Carlisle Barracks, PA.: Army War College Printing Office, 1998), 3.

[44]Washington, 1-1.

[45]MCDP 3, Department of the Navy, Headquarters, US Marine Corps, Expeditionary Operations, *(*Washington, D.C., Government Printing Press, 16 April 1998), 115.

[46]Ibid, 115.

[47]LMI, 3-9.

Content and Locations.

A maritime pre-positioning force operation is formed when a naval force of one or more maritime pre-positioning ships squadrons is united with a fly-in echelon, consisting of a MAGTF and a Navy support element.[48] Joint Publication 4-01 succinctly defines the Marine Corps Pre-positioning program: The Maritime pre-positioning force (MPF) consists of three maritime pre-positioning ship squadrons (MPSRONs: One , Two and Three) consisting of five to six ships per squadron. MPSRONs are strategically deployed around the globe to provide critical Marine Corps combat and sustainment capability. Major end items include M1A1 main battle tanks, amphibious assault vehicles, 155mm artillery pieces, and wheeled vehicles. Each MPSRON contains 30 days of combat service support stocks for a 18,000 person Marine Expeditionary Brigade (MEB), bulk fuel and water storage and discharge capabilities, in-stream discharge equipment, and helicopter decks for transfer of personnel. The Marine Coprs also maintains land-based pre-positioned assets in Norway (Norway Air-Landed Marine Expeditionary Brigade – NALMEB) sufficient to support a MEB for 30 days with equipment and supplies.[49] The Marine Corps deploys a T-AH 19 class ship, known as a floating hospital, with a mobile, flexible, rapidly responsive capability to provide acute medical care in support of all deployed services, (amphibious task forces, Marine Corps, Army, and Air Force elements).[50] In addition to the hospital ship, the Marine Corps also deploys an Aviation Logistics Support Ship (T-AVB) designed to provide dedicated sealift for movement of an aviation intermediate maintenance activity (IMA) to support the rapid deployment of US Marine Corps fixed- and rotary-wing aircraft units.[51] The majority of

[48]Ibid, 116.
[49]JP 4-01. *Joint Doctrine for the Defense Transportation System*, 19 March 2003, III-16.
[50]FMFM 1-5, Department of the Navy and US Marine Corps, *Maritime Pre-positioning Force Operations*, (Washington, D.C., September 1993), A-9.
[51]Ibid, A-11.

maintenance facilities normally used by the IMA when ashore are packaged in 8' X 8' X 20' containers designed as mobile facilities normally used….[52]

> Strategically, time and space are relative, and as the history of war has shown again and again, a handful of men at a certain spot at a certain hour is frequently a far more powerful instrument of war than ten times the number on the same spot twenty-four hours late.[53] J.F.C. Fuller

US AIR FORCE.

History and Strategic Employment.

There is little information on when the Air Force developed its pre-positioning program. Like the Army, the Air Force pre-positions equipment both afloat and on land. The Air Force's positioned materiel, [War Reserve Materiel (WRM)] is pre-positioned as **Starter Stocks,** (forward positioned in the area of operations (AOR) to provide ten to thirty days of support to combat operations), as **Swing Stocks**, (munitions stored on pre-positioned ships, initial bomber loads stored in CONUS, and as Stocks and Standard Air Munitions Packages (STAMP) (two caches of munitions in USAF depots.)[54] The Air Force relies on pre-positioning to reduce lift requirements, speed force closure, and reduce the need for forward positioning of operational air squadrons in sensitive areas where presence might have negative political repercussions or where they might be vulnerable to anti-access threats.[55]

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[52]Ibid, A-11.

[53]Air Force Doctrine Document (AFDD) 2-6, *Air Mobility Operations*, (Washington, D.C.: Government Printing Office, 25 June 1999),1.

[54]Air Force Instruction 25-101, *War Reserve Materiel (WRM) Program Guidance and Procedures*, (Washington, D. C.: Washington Printing Office, 2002, 2.

[55]LMI, 3-11.

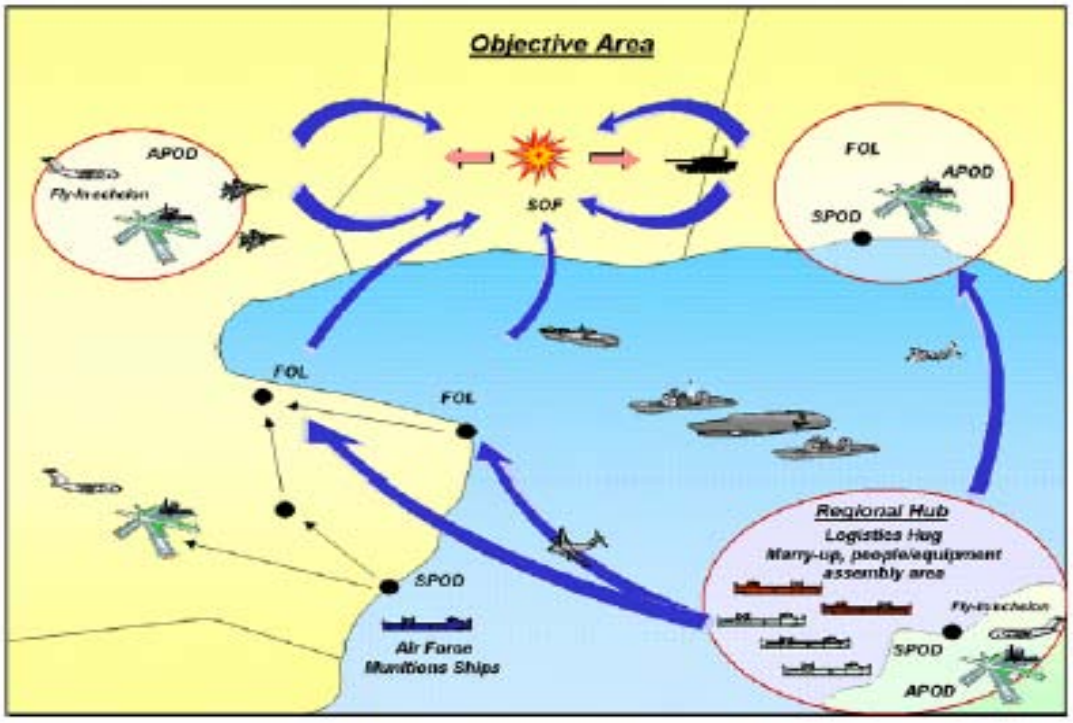

Figure 6: Air Force Flex Basing and WRM Pre-positioning.[56]

Content.

The Air Force's WRM falls into five basic categories: Basic Expeditionary Airfield Resources (BEAR) Equipment, consumables including rations and munitions, vehicles, and medical.[57] The primary commodity is ammunition consisting of standard air munitions packages, theater ammunition stocks, and life support and flightline support complexes. Unique to the Air Force is the bare base life support system intended for use in war, contingencies, and natural disasters. Harvest Falcon and Harvest Eagle represent two air transportable systems composed of hard wall shelters, Tent Expandable Modular Personnel tents, and a suite of equipment designed to overcome climate and infrastructure limitations. It can support up to

[56]LMI, 4-22
[57]Ibid, 3-12.

55,000 personnel and 822 aircraft at 15 bed-down locations. Prerequisites for using these systems include a runway, aircraft parking area, and a source of water that can be made potable.[58]

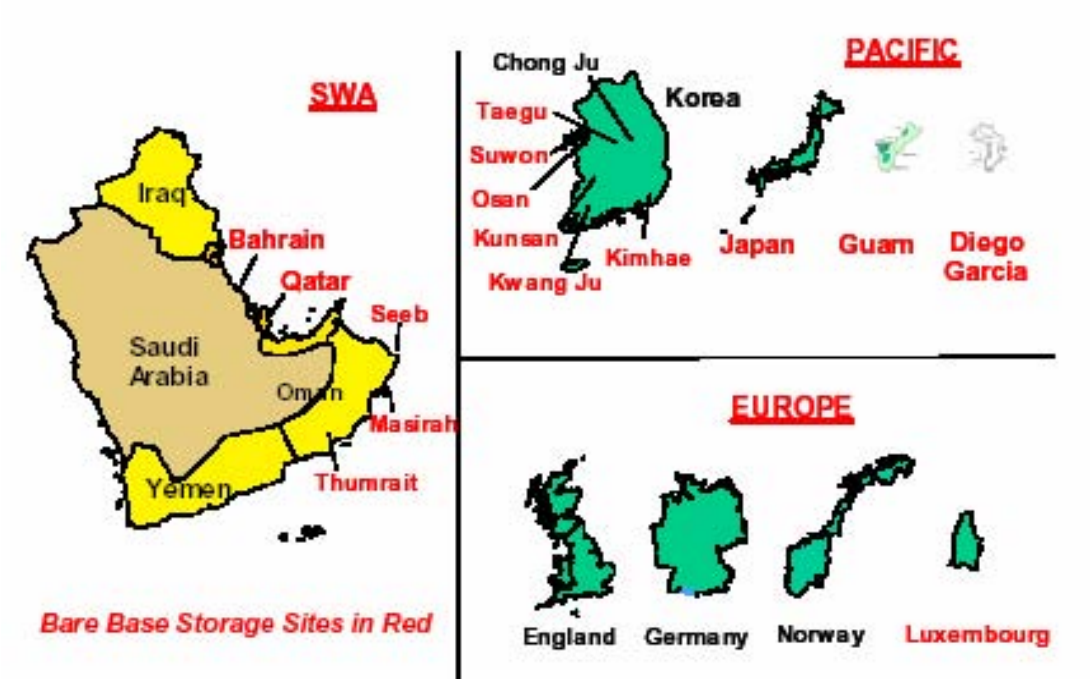

Figure 7: WRM Munitions and Bare Base Pre-Positioning Program[59]

Below is the Air Force doctrinal definition of these programs:

Harvest Eagle

A nickname for an air-transportable 550-person capable package of housekeeping equipment, spare parts, and supplies required for support of US Air Force general-purpose forces and personnel in bare-base conditions. Examples of Harvest Eagle equipment are water purification units, tents, and showers. Harvest Eagle is not intended to be an all-inclusive package of logistics support for sustained air operations; however, it does have limited airfield operations mobile aircraft arresting system (MAAS) and emergency airfield lighting system (EALS).

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[58]Air Force Instruction (AFI)10-209, *Operations: Red Horse Program,* (Washington, D.C.: Government Printing Press, 20 June 2001), 32. Also available at : http://afpubs.hq.af.mil

[59]LMI, A-16.

Harvest Falcon

A nickname for an air-transportable 1100-person capable package of hardwall shelters, tents, and equipment designed to support US Air Force personnel and aircraft under bare-base conditions. Harvest Falcon program objective, when fully funded and reconstituted, provides the capability to beddown 55,000 personnel and 750 aircraft. Sets of varying sizes can be independently deployed to 13 separate bare-base locations and 1 special operations force mobile operating location in the USCENTCOM area of responsibility (AOR). The package is designed to overcome host nation or US infrastructure limitations and is forward-deployed at planned operating bases, alternative AOR storage locations, or CONUS aggregation sites. Assets stored in CONUS and USAFE are available to support OPlAN crises or contingencies worldwide. Forward-deployed vehicles are also included.

Rapid Engineer Deployable (RED) Heavy Operational Repair Squadron Engineer (HORSE)

RED HORSE squadrons are organized into four echelons to operate on a hub-and-spoke concept. The concept is to deploy the entire squadron, including augmentees, to a single area of responsibility (AOR). As the wartime construction manager establishes work requirements and priorities, the squadron will deploy teams to accomplish projects. RED HORSE squadrons deploy in … echelons….[60] RED HORSE directly supports combat air power worldwide. They provide air component commanders a dedicated, flexible airfield and base heavy construction and repair capability, along with many special capabilities that allow the commanders in chief (CINC) to move and support missions as the air order of battle dictates. An active duty RED HORSE squadron consists of 400 personnel plus 4 augmentees and approximately 1,400 short tons of vehicles and heavy construction and support equipment.[61]

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[60]AFI 10-209, 32. http://afpubs.hq.af.mil

[61]Ibid, 32.

Prime Base Engineer Emergency Force (PRIME BEEF).

Through the Prime BEEF program, units will ensure civil engineer personnel…provide force beddown of Air Force units and weapons systems; operation and maintenance of Air Force facilities, infrastructure, and installations; aircraft rescue and aircraft/facility fire suppression; command and control staff augmentation; emergency repair of air bases to include rapid runway, airfields, and utility repairs, construction management of emergency repair and force beddown activities; rendering safe and disposal of explosive ordnance; and monitoring and protecting resources subject to the full spectrum of threats from natural disasters to nuclear, biological, chemical, and conventional attacks. Civil engineers execute these missions with in-place forces or by deploying the proper types and quantities of Prime BEEF UTCs designed for these missions. Specific capabilities for each Prime BEEF UTC are described in its mission capability statement.[62]

Prime Readiness in Base Services (PRIME RIBS).

Organize, train, and equip Services forces to deploy quickly to provide food service, lodging, fitness, recreation, laundry, mortuary, field exchanges, and NAF resale activities in support of worldwide contingency operations. Wartime duties fall into the following categories: Strategic Mission Support, inter-theater deployable, intra-theater deployable, overseas in-place, and CONUS sustainment.[63]

Locations.

The Air Force locates its WRM (equipment, consumables Harvest Eagle, and munitions) in Luxemburg, Unite Kingdom and Italy (European Command), in Diego Garcia (Southwest Asia), and in Korea and Guam (Pacific Command). There are four pre-positioned ammunition ships afloat: one in the Mediterranean and three in Diego Garcia.

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[62]AFI 10-210, *Operations: Prime Base Engineer Emergency Force (BEEF)*, (Washington, D.C.: Government Printing Press, 24 May 2002), 6, and also available on Internet: http://afpubs.hq.af.mil

Defense Logistics Agency (DLA).

DLA supports War Reserve Materiel program by ensuring the proper selection, sizing, positioning, pre-packaging, maintenance, and transportation of war reserve and their compliance with contingency plans.[64] Though the Services are responsible for computing …WRM requirements…and to budget, fund and manage WRM, DLA is responsible for identifying WRM shortfalls within each of the Services for inclusion in the Program Objective Memorandum (POM). Specifically, DLA stocks subsistence (Class I) forward in Qatar, United Arabs Emigrants (EAU), and Bahrain. Military Sealift Command (MSC) also operates two pre-positioning ships for DLA's Defense Energy Support Center (DESC). The fact that the CENTCOM AOR depleted all its Meal, Ready to Eat (MREs) stocks in OIF three times is a testimony to DLA's limited capability, a topic worth discussing later in this paper. To summarize Joint Publication 4-01, DLA pre-positions bulk fuel aboard several petroleum tankers, providing the capability to bridge the gap when land-based petroleum is either unavailable or insufficient. Some of the tankers contain the Offshore Petroleum Discharge System (OPDS) providing the capability to transfer liquid petroleum from ship-to-shore of 1.2 million gallons of fuel per day up to four miles offshore.

In conclusion, this chapter provided a historical review governing the development of each Service's pre-positioning program. Consistently, the centerpiece for the strategic employment of each program demonstrated an expeditionary focus and a desire to project power; decrease response times and win our nation's wars. Although the programs vary by service, each Service's program achieved its aim to facilitate rapid deployments and to reach distant theaters quickly. Perhaps due to Title 10 restrictions, the programs were Service specific and lacked the ability to integrate fully as a joint force. Secretary Rumsfeld's vision for transformation includes fully integrated joint forces. However, does this mean

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[63]AFI 214-25, *Operations: PRIME READINESS IN BASE SERVICES (RIBS)*, (Washington, D.C.: Government Printing Press, 25 September 2003), 13 and also available on Internet: http://www.e-publishing.af.mil.

[64]LMI, 3-17.

DOD has to develop a fully integrated joint pre-positioning program? Although the Army requires dedicated ships, from a multitude of sources, to support its APL equipment and materiel, there seems to be little to no guidance at the joint level since pre-positioning programs vary from Service to Service. The identification of requirements, funding, forward basing or staging decisions appear to be a Service responsibility. Nevertheless, understanding the history, strategic purpose, content, and location of each Service pre-position program is the foundation for beginning to analyze the relevancy of pre-positioning programs in terms of their ability to reduce strategic lift, project power, and serve as a springboard for deployments. The next chapter begins the comparison and analysis of pre-positioning programs in terms of strategic lift requirements and power projection capabilities.

Chapter 3

Strategic Lift and the "power" in Power Projection

Pre-positioning equipment and materiel abroad sends a political signal. When DOD places equipment on an ally's territory, it sends a message that the United States is willing to use force to protect that region from aggressors. The key to pre-positioning equipment is strategic responsiveness. Strategic responsiveness is defined as the ability to rapidly deploy mission tailored capabilities -- starting from the identification of a deployment need until the force is capable of initiating its mission. Does pre-positioning equipment and/or materiel provide the RCC a means to reduce the strain on strategic resources? Chapter 3 illustrates the impacts pre-positioning programs have on strategic lift. Specifically, this chapter compares the strategic air- and sealift assets used by the Army in three contingency operations. Lastly, this chapter considers the deployment of an Interim Brigade Combat Team (IBCT) comparing deployability requirements with and without pre-positioning its equipment. The intent of this chapter is to compare the total air and sealift requirements for units drawing preposition assets against units deploying with its home-station equipment. Additionally, it is important to compare the time it took

a unit to close into the Joint Operating Area (JOA). The Army is the biggest consumer of strategic lift. Even with pre-positioned equipment abroad, it still takes a considerable amount of strategic air and sealift to move Army units into a JOA. As discussed in Chapter 2, the Air Force uses forward operating locations to pre-position its bare base and munitions assets. The Marine Corps' pre-positioning concept is based on three forward-deployed MPRSONs. The best examples for demonstrating reductions in strategic air- and sealift are in the Army.

During Operations Iraqi Freedom, 3rd ID and 4th ID, two of the Army's heavy divisions, deployed to Camp Doha, Kuwait. Based on political reasons, Turkey denied the US access to their air- and seaports causing 4th ID to process through Kuwait. The 3ID deployed with only 30 percent of its homestation equipment and drew the remaining 70 percent from APS-3 and APS-5. The 4th ID deployed with nearly 100 percent of its home station equipment and was scheduled to draw no pre-position equipment. The 4th ID is a digitized division and there is no equipment currently in APS that is comparable to the capabilities that exist in 4th ID. The specific strategic resources required to deploy these two divisions are classified, but open sources approximate the deployment requirements. According to 3ID After Action Review, it took 59 aircraft and eight ships to deploy 3rd ID to Kuwait.[65] In contrast, it took 142 aircraft and 33 ships to deploy 4th ID.[66] Reviewing the difference, it took three times as many ships and more than twice the amount of aircraft to get 4th ID into Kuwait. Statistically, one can challenge that these figures are skewed based on the fact one brigade (3BCT/3ID) left its equipment in Kuwait following a March - August 02 CCRF rotation and another BCT (2BCT/3ID) was rotating to Kuwait for its September 02 - February 03 CCRF rotation skews these figures. But the facts of the matter is 3rd ID drew 70 percent of its equipment from Army pre-positioning programs, thus reducing its overall strategic lift requirements regardless of where their equipment was at the time of the deployment. Force

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[65]Louis W. Weber (BG, USA) and Melinda S. Woodhurst, (LTC, USA). After Action Report for 3ID Reception, Staging, Onward Movement and Integration (RSOI), 17 March 2003, 1.

[66]Joseph Peck, CW2, USA, 3rd ID (MECH) Mobility Technician sent this data in an email on 4 April 2004.

closure times are difficult to assess due to the inability of 4th ID to process through air- and seaports in Turkey. However, after action reports specify the force closure of 3rd ID within 21 days. Had 4th ID deployed directly from Fort Hood, Texas to Kuwaiti International Airport or the Port of ASH Shuaybah, the estimated shipping time would have been more than 45 to 60 days alone. Furthermore, contrasting 3rd ID's deployment requirements with the 24th ID in Operations Desert Shield/ Desert Storm, it took forty days (13 Aug - 23 Sep 90) to ship 24th ID's equipment to the port of Ad Damman, Saudi Arabia.[67] Operation Restore Hope, Somalia provides another example to contrast strategic lift requirements. The 10th Mountain Division's deployment requirements in Operation Restore Hope took approximately 25 days of sail time. The 10th Mountain Division shipped its equipment from Bayonne, NJ beginning 10 December 1992 and did not arrive until early February 1993[68]. Most of 10th Mountain Division's equipment deployed by strategic airlift, delivering the last of 127 aircraft on 9 January 1993[69]. Of special note, the Joint Staff placed a force cap of 30,000 U.S. personnel in Somalia, of which only 5, 000 came from the 10th Mountain Division, as compare to closing xx,000 personnel from 3rd ID in OIF. The Army deployed pre-positioning ships from Diego Garcia; however, found difficulty in off loading these ships due to port constraints. Additionally, the equipment in Army pre-position afloat did not provide the equipment necessary to humanitarian operations.

The Army designed the IBCT to deploy rapidly a lethal and survivable force into a contingency. The Army established a force closure time of 96 hours, thus dictating it be deployable by air. Major William Ward, using Joint Flow and Analysis System (JFAST), wrote a monograph stating it would take eight days and 46 C-5s and 54 C-17s to deploy an IBCT by air.[70] In a more exhaustive study using the

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[67]James K. Matthews and Cora J. "Holt, So Many, So Much, So Far, So Fast: United States Transportation Command and Strategic deployment for Operation Desert Shield/Desert Storm." Scott AFB, IL: USTRANSCOM Office of History, 1993, 250 and 292

[68]David Kassing, "Transporting the Army in Operation Restore Hope", RAND, 1994, 28.

[69]Ibid, 8.

[70] William R. Ward, Major, USAF. *Strategic Lift and Interim Brigade Combat Team*, Monograph, School of Advanced Military Studies, US Army Command and General Staff College, 2001, 31.

Air Flow Model (AFM) program and the Model for Intertheater Deployment by Air and Sea (MIDAS), TRADOC Analysis Center (TRAC) Leavenworth determined the IBCT exceeded the 96 hour deployment timeline 56 in of the 56 scenarios studied.[71] When considering the deployment capabilities of an IBCT or SBCT, a RAND study offers the following:

Currently, the Army's light-heavy conventional force structure forces a choice between response speed and combat power. If we think of combat power along on dimension for simplicity, such as a measure of lethality and survivability, for a given unit size, we can posit a relationship between how long it takes to deploy and how much combat power we be deployed. Today there is a gap between the firepower of an Army heavy brigade and a light brigade and a corresponding big gap between deployment closure times. If time is deemed paramount, then a level of force or operational risk will result. Alternatively, of the force risk is not acceptable, then time risks results.[72]

As a medium force, the SBCT falls in between these extremes, eliminating risk in some situations in which the time and power it offers meets the mission demand or reducing the time or force risk in other situations.[73] This study goes on to consider the advantages of "selected prepositioning" or pre-positioning part of a unit's equipment forward as a means for improving strategic response times. Pre-positioning the SBCT's soft-skin vehicles and sustainment assets would reduce airlift mission requirements by 60%, yet these vehicles account for only about 10% of the SBCT's vehicle costs.[74] Challenging the decision to pre-position this equipment is the question of where to pre-position it. Another option is to pre-position this equipment aboard the Army's Flotillas. Additionally, in the above mentioned RAND study, the author demonstrates a reduction of airlift from 43% to 8% in a fictitious deployment scenario from Fort Lewis, Washington to Skopje. Therefore, while the timesavings were limited, the pre-positioning still presents

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[71]Glenn C. Baca, Major, USA, *Strategic Mobility and the Transforming Army*, Monograph, School of Advanced Military Studies, US Army Command and General Staff College, 01-02, 15.

[72]Eric Peltz, John Halliday, and Amiee Bower, "Strategic Responsiveness: Rapid Deployment of Mission Tailored Capabilities for Prompt Power Projection." RAND, 2003, 13.

[73]Ibid, 13.

substantial value to the combatant commander by freeing up significant airlift capacity for other uses, such as moving Air Force units to regional bases[75]. The essential concern for pre-positioning IBCT or SBCT equipment is cost. However, consider pre-positioning one or more brigade equipment sets, or some of its common use equipment in geographic locations and the possibilities of using that equipment in support of a brigade-level rotation, much like the CCRF rotations in Kuwait. This would provide a multiple uses for the same set of equipment, reduce the strain on airfield operations, provide units a training opportunity for exercising pre-position programs, and provide early use of the equipment in the case of a deployment.

In summary, comparing deployment data presented in OIF, Desert Shield/Desert Storm, and in Operation Provide Hope provides examples of how pre-positioning equipment reduces strategic lift requirements. Additionally, by evaluating the options for deploying an objective force unit within the 96-hour mandated deployment timeline, the RAND study demonstrate the value pre-positioning offers with respect to reducing strategic lift requirements. The next chapter analyzes the content in each of the Service's pre-positions programs to determine if the right equipment and materiel is in the right location and if the Services' program to meet the expectations of the current Defense Planning Guidance.

Chapter 4

Content – Changes to Enhance Capabilities

> [A] future force that is defined less by size and more by mobility and swiftness, one that is easier to deploy and sustain, one that relies more heavily on stealth, precision weaponry and information technologies.[76] *George W. Bush*

This chapter takes the information in Chapter 2 a step further. It analyzes the content in each of the Service's pre-positions programs to determine if the current program meets Secretary's Rumfeld's vision of future operations in an era of transformation. Specifically, does the DOD have the right

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[74] Ibid, 24-25.
[75] Ibid, 26.
[76]George W. Bush, *"Transformation Planning Guidance"*, April 2003.

equipment and materiel in the right location in each of the Services' program to meet the expectations of the current Defense Planning Guidance?

The draft Joint Operating Concept for Major Combat Operations (MCO) provides this guidance: The US must have strategic and operational capabilities along with the flexibility and agility to counter anti-access threats and area denial strategies by various means to ensure the use of needed lines of communication and infrastructure. Forward stationing and the forward-presence of US forces reassure friends and allies, and tend to dissuade potential adversaries. Also, these forward-deployed forces are potentially the first responders to counter anti-access and area denial strategies. Implementing a combination of flexible deterrent options potentially deters further aggressive acts by an adversary.[77]

> Rapid and global employment, mobility, endurance, and worldwide sustainment are future force hallmarks. Fully capable and immediately employable forces must be projected swiftly from the sea, from the air, over land, or by a combination thereof into a JOA that may have no developed infrastructure. Mobility contributes to strategic and operational reach as well as to improved protection. Endurance equates to staying power and the ability to withstand the rigors of a campaign. Sustainment and its dynamic distribution network assure unrivaled provisioning even when lines of communication are not secure, and during forcible-entry operations.[78]

The US defense strategy requires a pre-positioning posture to enable faster force closure and be more flexible; more expeditionary; more survivable against anti-access threats; more joint and supportive of emerging joint warfighting concepts; and consistent with new DOD basing initiatives. The scope of this paper is too limited to cover every tenant of this posture statement. However, it is relevant to discuss land and sea basing pre-positioning concepts in terms of "faster force closures" from an "expeditionary and joint warfighting" capability. Instead of analyzing each criterion by Service, it is more relevant to analyze the criterion from a forward based (Land-based) and afloat perspective.

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[77]Joint Operating Concepts, *Major Combat Operations*, Feb 2004, 21. Available on http://www.dtic.mil/jointvision/draftmco_joc.doc

[78]Ibid, 36.

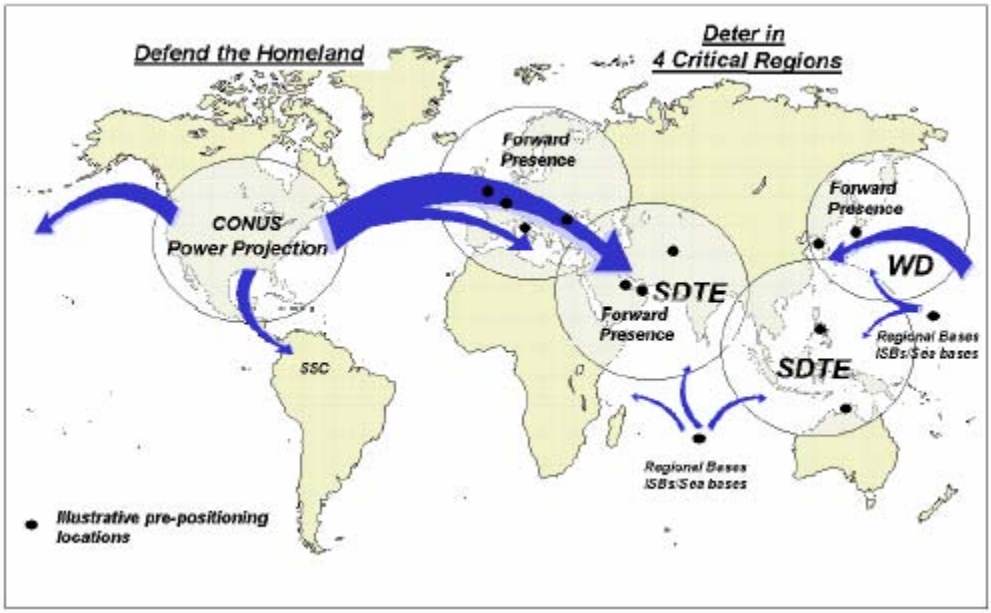

Figure 8: Pre-positioning and U.S. Defense Strategy[79]

Land-based Pre-positioning:

As mentioned in Chapter 3, pre-positioning equipment and materiel abroad sends a political signal. Pre-positioned equipment and forward basing of personnel provide the RCC commander leverage for developing information operations and contingency planning. When DOD places equipment on an ally's territory, it sends a message that the United States is willing to use force to protect that region from aggressors. Forward presence demonstrates US commitment and resolve to defend allies and friends, contributes to coalition building, and supports rapid force buildup in a crisis. The ability to fall in on equipment, gain access to strategically placed support nodes, and the inherent show of force give the Regional Combatant Commander (RCC) a menu of flexible deterrent options (FDO). The Army is the only branch of Service to pre-positions equipment in unit sets globally. The centerpiece of the Army's pre-positioning program is the forward basing of heavy maneuver brigades, the division base and corps

support elements in three of the four unit set configurations. As demonstrated in Chapter 3, this unit set configuration proved successful in its ability to close a division in that thirty days mainly because the 3rd ID (M) had one brigade participating in a CCRF rotation and because 70% of the equipment 3rd ID (M) used in OIF came from APS stocks forward based in Kuwait or afloat in APS unit sets. Therefore, pre-positioned equipment for the Army met the criterion for swift force closure. 3ID (M) could have reduced the force closure times and strategic lift requirements had the APS 5 set contained equipment as modern as their equipment from home station, or had Army Materiel Command been able to return from maintenance those items available in the Automated Battlebook System (ABS). The 3rd ID (M) deployed from home station all of its aviation, signal, military and intelligence equipment, some command tracks, Linebackers, and Avengers, due to modernization issues, and some all-purpose wheel vehicles (HMMWV), and general support equipment (HEMMT fuelers, track recovery vehicle) due to unavailability of equipment due to maintenance.[80] To address the issue of modernization, one has to consider the validity of placing higher technology equipment in forward pre-positioning sites. It took five cargo planes and eight ships to close 3ID (M). Placing this equipment in pre-positioned unit sets would have reduced strategic lift requirements by that many air frames and ships. Modernity still begs several more questions: what about Stryker brigade and the future objective force (OF)? What about the digitized equipment assigned to 4th ID? Furthermore, since after action reports document a lack of sufficient RSOI assets to process the units arriving in Kuwait, should the future land-based pre-positioned assets include theater opening packages and other Combat Support/Combat Service Support Assets (CS/CSS)?

Should any, all, or some of the above-mentioned equipment be stored in Army pre-positioned sets? The answer is yes, but one has to take a balanced approach. Budget constraints limit what we can pre-position. Beginning with the Stryker, it takes 270 C17s to deploy one brigade into a theater of

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[79]LMI, 4-2.

operation. Although expensive, the Army could meet it deployment goal of 96 hours should it decide to pre-position a least one Stryker brigade. Not only, would the Army have the flexibility to commit a sizeable combat force within four days, DOD could redistribute the strategic air and sea assets to other critical missions. It cost about $1.5 billion to purchase one Stryker Brigade. If this course of action proves too expensive or unfeasible due to the limited number of available Stryker Brigades, the Army could choose to pre-position common equipment items (trucks, fuelers, parts, etc) thus reducing the amount of equipment commit to the 90 sorties of C-17s. The same arguments apply to the Objective Force (OF). It would take 340 C-17 sorties to deploy one unit of action (UA) in the OF. The Army could place at least one UA brigade in a pre-positioned set or place some of the common equipment items in order to reduce the air and sea requirements. All these options place operational capabilities forward thus reducing the strategic lift requirements and the time needed to close forces. This is exactly the concept provided to each Brigade Combat Team (BCT) rotating to the National Training Center.

Another option is for the Army to reconsider its pre-positioning locations. How valid are the pre-positioning sites in Germany and in Korea? If the NMS requires the DOD to deter aggression in four critical regions – North Asia, the East Asian Littoral, the Middle East/Southwest Asia, and Europe, then are the current pre-positioning sites in strategic locations to achieve this objective? OIF solidified and validated the location for APS-5. The Army could reconsider it pre-positioning strategy for APS-2 in Germany and APS 4 in Korea to coincide with locations designed to expand US presence. The CCRF rotation is a perfect example to illustrate this point. Repositioning maneuver equipment, CS/CSS equipment, and/or theater opening packages in areas like Oman, Iraq, Romania, Hungary, Czech Republic, Bulgaria, Georgia, Azerbaijan, Australia, the Philippines, Guam, and further south in Korea., supports the Defense Planning Guidance's goal for developing a flexible basing strategy. Additionally,

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[80] What is important to note here is that the 3rd Infantry Division Commander's policy was deploy equipment that was not available in APS. Though the property book identified equipment as available, some of that equipment was in maintenance with a estimated completion date (ECD) of more than three months.

other benefits include a comprehensive program to rotate units to these sites for training on the draw, use, and reconstitution of the equipment.

Though the Air Force does not pre-position units, the centerpiece of the Air Force's pre-positioning program is in its pre-positioning of WRM. As stated in Chapter 2, the Air Force pre-positions WRM in six countries representing Southwest, the Pacific and European AORs, all based on Cold War scenarios. Additionally, the Air Force's pre-positioning strategy based its planning assumptions on the two major theaters of war (MTW). The greatest issue for the Air Force is not necessarily, what is in its WRM program, but where are the pre-positioned locations? Key is the issue of anti-access areas, much like the denial to flow 4th ID from Turkey in OIF.

Post OIF, the Air Force is transitioning to an Aerospace Expeditionary Force with a continued reliance on a network of oversea bases for combat operations called "flex-basing."[81] The Air Force relies heavily on its Bare Base capabilities in order to support flying operations. These sets consume a lot of strategic airlift. One option is to reposition some of the CONUS based bare base and WRM to one or more of the forward operating location(s) or on ships afloat. Secondly, the Air Force could relocate and/or establish new FOLs to locations better capable of supporting the Defense Planning Guidance. Suggested FOLs include locations in Kuwait, Qatar, Oman, Iraq, Romania, Hungry, Czech Republic, Bulgaria, Georgia, Azerbaijan, Australia, and the Philippines. Coincidentally, these are the same locations that the Army could use to as land-based pre-position sites. The risks of these options are the strength and predictability of alliances. Much like Turkey's denial to use their sovereign soil in support of (ISO) OIF, the US would have to weigh the risk of denied access against the savings in strategic lift.

In terms of expeditionary, both the Army and the Air Force can increase force closure times by standardizing the packages in forward based locations. In reaction to directive from the Secretary Rumfeld and General Schoomaker, the Chief of Staff of the Army, to create expeditionary units through

modularity, again the 3rd ID (M) took the lead. By transforming from three maneuver brigades to five, and by restructuring artillery, engineer support, and logistics support, the new BCT concept and structure can be exported into a new and improved preposition set and either strategically located in an area that offers an opportunity for use on a rotational bases. The Air Force's Expeditionary Force offers the same concept for pre-positioning common items as a means for offering flexibility, operational maneuver from strategic distances and reducing force closure times.

In conclusion, the RCC has a multitude of options and can exploit information operations (IO) to maximize the power pre-positioning programs bring to a contingency operation. Other scenarios in OIF include an example of force movements proving successful with the 82nd Airborne Division's near non-permissive entry into Haiti. Consider if the CFLCC commander had dedicated strategic lift assets to 1AD, 1ID, or 4ID instead of 3ID (M). By doing so, he could have bought the US time for diplomacy, and political resolve. CONUS base units could have loaded sea assets and could have used the time between September 02 and January 03 to get underway thus reducing the sail time. This would save flying in the 3ID (M) last, as the closure times were significantly less that the other three divisions. This option would allow for the nearly simultaneous reception versus the sequential reception of two divisions. The point here is pre-position programs offer the RCC the option of trading time for space. OIF demonstrated a similar approach to this theory in that incrementally, the Bush Administration tied the download of four pre-positioned ships (USNC Watkins, USNS Watson, USNS Charlton, and the USNS Red Cloud) to failures by the former Iraqi leader to comply with the United Nations mandates for weapons inspections and for disarming weapons of mass destruction.[82] During this five month period, (July to November 2002), the Commander of CFLCC took measures to deploy a credible combat forces for the eventual liberation of Iraq.

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[81]Paul S. Killingsworth, et al. RAND. *FlexBasing: Achieving Global Presence for Expeditionary Aerospace Forces*, MR-1113-AF, 2000 and LMI, 3-10.

[82]LMI, 4-1.

Afloat Pre-positioning.

Pre-positioning afloat has universal utility for the RCCs. Afloat operations should be global in nature, joint in character, and suitable for employment in a variety of situations. In evaluating afloat programs, the following three areas are critical: ability to reduce closure times, equipment modernization, and expeditionary/joint integration. As an initial observation, the equipment content and/or the employment techniques for each of the Services afloat programs would indicate a "stove-pipe" focus.

Although the Army and the Air Force pre-position afloat programs includes equipment and materiel, and munitions, respectively, the centerpiece of the Navy and Marine Corps programs is their pre-positioning afloat concept. As stated in Chapter 2, the Navy pre-positions afloat air munitions, hospitals in support of the Marines, and SeaBees. The content (mostly munitions in support of its own Service) is service-specific and ensures the sustainment and expansions of Naval forward presence without creating a large demand on strategic lift resources.

Strategic employment supports the Navy's "Sea Power 21"(Sea Strike, Sea Shield, and Sea Basing) strategy, but does little to integrate with the others services in a joint/expeditious manner. Redesigning the Navy's afloat program is an area that provides many options for converting existing Army, Air force, and Marine afloat equipment and materiel into afloat programs that include expeditionary, "joint-like", power projection concepts. Examples include developing a common logistics system compatible with the Marines, making Maritime Pre-positioning Ships (MPS) dual use/dual capable (as pre-position afloat ships and as floating warehouses), and integrating the Marines Enhanced Networked Seabasing (ENS)[83]. With the ENS concept, the Navy acquires capabilities to support land operations through sea based pre-positioning. There is no data available in reference to the modernization of naval equipment. Perhaps these issues did not exist or are still being realized in post-OIF lessons

[83]LMI, 3-8, defines Enhanced Networked Seabasing (ENS) as a future Marine power projection concept composed of carrier strike groups and expeditionary strike groups as the core element that, with the expansion of

learned. Less the Norway Air-Landed Marine Expeditionary Brigade (NALMEB), the entire Marine Corps pre-positioning program is afloat and are aboard fifteen ships.

The equipment contents of these programs are consistent with their "Operational Maneuver from the Sea" doctrine; however, their employment could be more expeditionary, and more "joint-like". The Marine Corps is the only service to keep the most modern equipment in its pre-positioned afloat program, and OIF validated their ability deploy a MPSRON and employ it in an MCO. The II MEF's closure times were consistent with Marine Corps doctrine, but it was not without the challenges of a theater limited in its ability to conduct JRSOI functions. Although the MPF concept currently provides a MEB from a MPSRON in 10 days from a fixed port and 15-20 days, future Marine Corps concepts include the capacity to conduct en route and at-sea arrival and assembly of forces. The Marine Corps continues to seek ways to be more integrated in joint operations and to be more expeditionary. Their MPF concept will transition to MPF(F) embracing Enhanced Networked Seabasing (ENS) as a future Marine power projection concept composed of carrier strike groups and expeditionary strike groups as the core element that, with the expansion of naval platforms, can provide secure, protected "bases" for power projection…in high anti-access environments. It provides C2 of joint forces and joint logistics from the sea directly to ground and air forces….[84] MPF(F) will project power more quickly, potentially projecting a MEB ashore as early as five days quicker than in the MPF. Additionally, the fly in echelon (FIE) is significantly smaller than in the MPF. Lastly, the MPF(F) does not need as many support personnel because it does not require establishment of a support structure ashore.[85]

The Service with the greatest opportunity to redesign the content of an afloat program, it is the Army. APS-3, and pre-OIC, contained four battalion task forces, division base, CS/CSS, ammunition and an auxiliary crane, totaled 13 ships and based out of Diego Garcia. The equipment contained in APS did

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naval platforms, can provide secure, protected "bases" for power projection…in high anti-access environments. It provides C2 of joint forces and joint logistics from the sea directly to ground and air forces….

[84]Ibid.

not equal the modernization levels equal to equipment at home station. The sustainment packages contained in APS-3 were supposed to include automation stamis, prescribed load lists (PLLs) and authorized stockage lists (ASL). Ideally, the intent of this equipment was to complete the closure of a division and to begin building theater sustainment stocks. Because the basis of the APS-3 configuration came from a NSS strategy of containment, the need for a heavy conventional force, and on equipment formulated in POMCUS equipment sets, it is time to transition APS-3 to meet objective specified in the General Defense Plan 2004-2009. Realistically, post 9/11 strategies and the policy of preemption dictates that the Army's afloat pre-positioning program transition to a more flexible, "joint-like", and adaptable pre-positioning afloat concept. The Army's answer to this challenge is the Army Regional Flotilla Concept (ARF). The ARF concept expands the APS-3 afloat concept to three flotillas (ARF I – Mediterranean, ARF II - Diego Garcia, and ARF III – Guam/Saipan), containing a mixture of conventional forces (six battalion task forces), humanitarian and disaster relief equipment and materiel, common echelons above division and corps logistics (including Stryker/OF CSS) equipment and materiel, and ammunition.[86]

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[85]Ibid, 4-14.

[86]Briefing by G-3, *Emerging Strategy for Army Pre-positioned Stocks (APS).*Charts 18, 19, and 20. June 2003

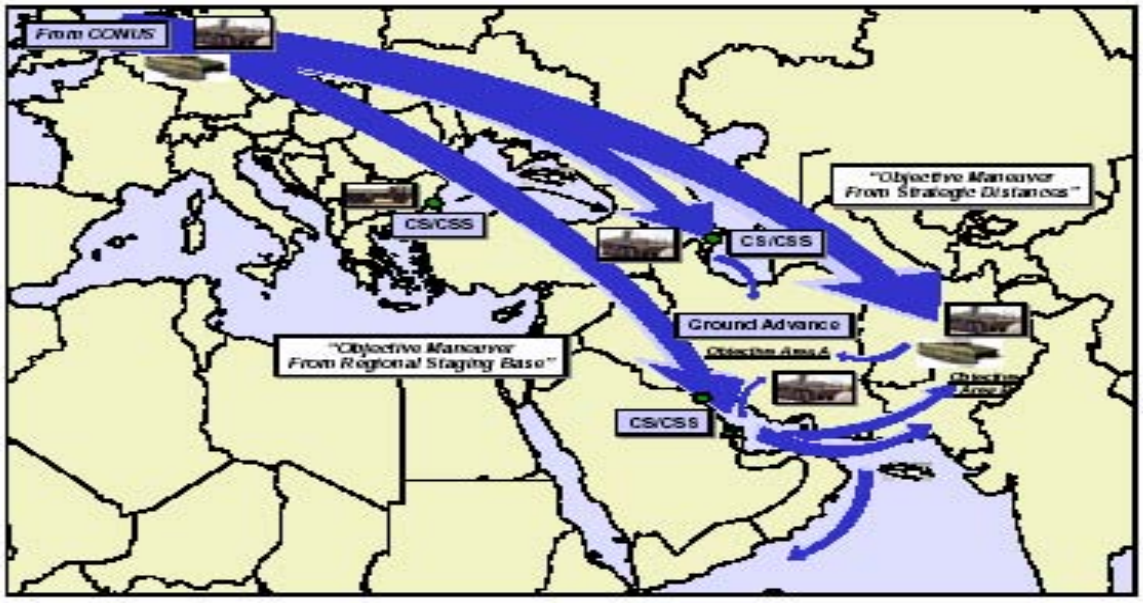

Figure 9: CS/CSS Pre-positioning for SBCT/Objective Force[87]

Last and not least, is the Air Force pre-position afloat program, consisting of four munitions ships pre-positioned afloat. Because the Air Force relies heavily on FOLs, there appears to be no issues with the type and quantity of munitions the Air Force pre-positions afloat. Likewise, there are no recorded issues from OIF concerning the lack of modernization of munitions pre-positioned afloat. However, in the Air Force Journal of Logistics, John Abell noted that it took almost nine weeks to offload the USNS Bennett during the air war in Kosovo, due to unavailability of a deep draft port, unavailability of materiel handling personnel and equipment and the need for host nation approval to off-load the vessel.[88] As the DOD transforms to more expeditionary means, the Air Force has several options to consider. First, the Air Force should look at relocating from their few large fixed bases to smaller but greater number of FOLs that are more strategically dispersed. This would help reduce ammunition stockage-levels and allow for the potential reduction in ship size. Secondly, they should consider repositioning some of their

[87]LMI, 4-28.

bare base (Harvest EAGLE/Harvest BARE) and other WRM items from CONUS sites to pre-position afloat assets to allow for a reduction in strategic air lift required to move these items. Lastly, the Air Force should integrate critical elements of their Air Force Expeditionary Force into the Marine Corps' ENS concept.

In conclusion, both land and afloat pre-positioning programs provide a means to reduce force closure times, reduce strategic lift requirements, and serve as a means to project power. However, there is much to do for the Services to meet Secretary Rumfeld's intent as defined in his Transformation Planning Guidance.

Chapter 5

Training and Doctrine: Exercising Pre-positioning Programs

> The Lesson of [the war in Afghanistan] is that effectiveness in combat will depend heavily on jointness, how well the different branches of the military communicate and coordinate their efforts on the battlefield…achieving jointness in wartime requires building that jointness in peacetime.[89]
>
> Secretary of Defense Donald H. Rumsfeld

Since the Cold War, US military forces have conducted twenty-seven operations, of which twenty-five involved multiple services, or joint forces. However, after action reports identify weaknesses in US forces' capability to operate as a joint force. To that end, the Chairman of the Joint Chiefs of Staff (CJCS) established the US Atlantic Command (USACOM) and designated it as the responsible agency for joint training of US forces. In October of 1999, USACOM changed its name to US Joint Forces Command (USJFCOM) representing the only unified command with both a geographic area and functional responsibilities. In July 1995, the US General Accounting Office's (GAO) *Report to*

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[88]John B. Abell et al, "Strategy 2000: alternative Munitions Pre-positioning, " *Air Force Journal of Logistics*, volume XXIV, Number 2, 19-20, and also available in LMI, 1-4.

[89]CJCSI 3500.01C, *Chairman's Joint Training Policy and Guidance for the Armed Forces of the United States*, (Washington, D.C.: Joint Staff, 31 October 2003), A-1.

Congressional Requesters cited 75 percent of all joint exercises fail to have joint training objectives.[90] In reviewing the joint exercises conducted in 1994, 60 percent of these exercises involved a single service.

USJFCOM designed Millennium Challenge 2000 as a means to explore joint war-fighting concepts, but only a limited number of services participated. Although Millennium Challenge 2002 and the one projected for 2004 show an increase in service participation, there is still little focus on the leveraging of pre-positioned equipment as a training objective. Moreover, in the last decade, there have been only three joint exercises, (Desert Strike 1996, Lucky Sentinel 2000, and Native Atlas/Native Fury 2000), involving the use of pre-positioned equipment as a means of testing and evolving real interoperability.[91] Operation Desert Strike 1996 represented a combination of a US Army battalion task force (INTRINSIC ACTION), the US Marine Corps (Eager MACE), and Special Operations Forces (IRIS GOLD) designed to conduct combined training with the Kuwaiti Land Forces and other coalition partners.[92] Lucky Sentinel is an ARCENT's premier battle staff exercise, conducted annually to train the Coalition/Joint Task Force-Kuwait staff, Kuwait Armed Forces staff, Kuwait ministry of Interior staff and selected support unit staffs at the operational level of warfighting. It is an operations plan (OPLAN) exercise testing the Joint Reception, Staging, Onward movement, and Integration (JRSOI) portion of the OPLAN.[93] Lucky Sentinel is a computer-assisted, command post exercise that involved multi-national forces and joint service operations, including reserve forces,[94] demonstrating US commitment to the Gulf region's security and stability. Native Atlas 2000, conducted annually under various titles, was a Joint Logistics Over the Shore (JLOTS) operation, designed to exercise the issue one battalion set of Army pre-position equipment from APS-3. Native Atlas 2002, dubbed the largest, most challenging JLOTs exercise since Exercise Ocean Venture 1993, was a four phase exercise including Army, Navy, Air Force, and

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[90]United States General Accounting Office, *Military Capabilities, Stronger Joint Staff Role Needed to Enhance Joint Military Training* (Washington, D.C.: Government Printing Office, July 1995, 19.

[91]LMI, 4-46.

[92]Available on Internet: http://www.globalsecurity.org/military/ops/intrinsic_action.htm.

[93]Available on Internet: http://www.globalsecurity.org/military/ops/lucky-sentinel.htm.

Marine Corps. The exercise highlighted the ability of the US to project power from the sea when port facilities are nonexistent, and to sustain forces on the ground.[95]

In contrast, there are more historical examples deploying and using pre-positioned equipment in actual contingencies. Since Desert Shield and Desert Storm in 1990, the Army, Air Force, Navy and Marine Corps have deployed to contingencies in Saudi Arabia, Kenya, Somalia, Bosnia, Kosovo, and Kuwait, relying heavily the use of pre-positioned equipment as a means to close forces quickly and reduce strategic lift requirements. Instead of maximizing the use of joint training exercises to hone joint interoperability skills, historically, the services use lessons observed during actual deployments to endure the procedures for drawing and exercising the use of pre-positioned equipment

General Henry Shelton, former CJCS, stated, "joint training is designed to ensure the Armed Forces of the United States are ready to execute the National Military Strategy in shaping the global environment and responding across the full spectrum of crises and range of military operations – MOST IMPORTANTLY, the ability to defeat our adversaries.[96] Joint Vision (JV) 2010 includes new operational concepts of dominant maneuver precision engagement, focused logistics, and full dimensional protection that will require changes in the Armed Forces of the United States to execute future missions.[97] Simplistically put, the key to future military operations is for US forces to train as they will fight. The greatest challenge with all DOD pre-positioning programs is the lack of training, both service-specific and joint interoperability exercises.

DOD has a prime opportunity to maximize defense dollars while maximizing joint training opportunities. In testimony before the Senate Armed Services Committee, Deputy Secretary of Defense Paul Wolfowitz stated "the centerpiece of our training transformation effort will be the Joint National

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[94]Available on Internet: http://www-sa.arcent.army.mil/news/archive/2001_News/article_07.html
[95]Available on Internet: http://globalsecurity.org/military/ops/native_atlas.htm.
[96]Henry H. Shelton, CJCSI 3500.01B, *Joint Training Policy for the Armed Forces of the United States*, (Washington, D.C.: Joint Staff, 31 December 1999), vi.
[97]Ibid, A-2.

Training Capability."[98] Initial successes include a January 2004 event (Western Range Complex), conducted in four states (California, Nevada, Arizona, and New Mexico), with supporting sites in seven states (Texas, Louisiana, Kansas, Alabama, Georgia, Florida, and Virginia). It leveraged and integrated existing Service training events including an Army National Guard Training Center brigade rotation at Fort Irwin; a US Marine Corps Air Ground Combat Center, Twenty-nine Palms; Navy Strike Group Training, including a Stand-Off Land Attack Missile Exercise in the vicinity of San Diego; and the Air Force's Air Warrior exercise a Nellis Air Force Base.[99] The key accomplishment here was communications integration into realistic joint training. Perhaps future exercises of this nature can take the training objectives a step further designed to exercise the Enhanced Network Seabasing and allow opportunities for the Services to employ pre-positioning concepts.

Joint doctrine is another area hindering the planning and employment of pre-positioning capabilities. Less CJCSI 4310.01, Logistics Planning Guidance for Pre-positioned ships, thirteen joint publications fragment pre-positioning concepts. No single joint publication defines the role of pre-positioning in US strategy; roles and responsibilities of the Military Services, RCCS and Joint Staff in determining and establishing DOD pre-positioning postures; and joint planning and employment of pre-positioning capabilities.[100]

In summary, the January 2004 exercise demonstrated a quantum leap in improving joint training; however, it still did little to focus on objectives necessary to train joint forces on the use of pre-positioned equipment programs. Arguably, deployments are still "cold war" centric in that each service deploys or exercises its existing pre-positioned program independent of the other services and in avoid of interoperability. By redesigning and restructuring the services into modular packages that are rapidly deployable, employable and sustainable, USJFCOM has an opportunity to construct pre-positioned

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[98] USJFCOM homepage, "News fro USJFCOM: Leading the U.S. Military Transformation, Available on Internet: http://www.jfcom.mil/newslink/storyarchive/2004, 4.

[99] Ibid, 6.

equipment packages, forward locate them in key geographic locations and develop joint training exercises designed to rotate forces into those locations for the purposes exercising forward pre-positioned equipment on land or afloat. The downloading of flotillas, the drawing of equipment in key geographic areas, and the use/reconstitution of pre-positioned equipment provide ways to enhance joint training and exercise programs. Additionally, by developing exercises to rotate forces into these geographic locations, the Regional Combatant commander enhances relations with the host country, demonstrates his resolve for shared security, provides employment opportunities to host governments, and fine tunes deployment training while minimizing strategic lift resources. Developing joint doctrine and redefining pre-positioning concepts to reflect common usage will make future pre-positioning supportive of joint operations. The DOD looks to US Transportation Command as the executive agent for strategic mobility. Strategic mobility is the instrument that allows the United States to play upon the world stage at whatever level is chosen by our national leadership.[101] In Joint Vision 2010, the Chairman of the Joint Chiefs of Staff provides a common direction into the next century for our services. "USTRANSCOM, providing timely, customer-focused global mobility in peace and war through efficient, effective, and integrated transportation from origin to destination."

Chapter 6

Conclusions and Recommendations

> We need to change not only the capabilities at our disposal, but also how we think about war. All the high tech weapons in the world will not transform the US armed forces unless we also transform the weay we think, the way we train, the way we exercise, and the way we fight.
>
> Secretary Rumfeld's Remarks to National Defense University, 31 Jan 02.[102]

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[100] LMI, 4-46.

[101] United States Transportation Command Homepage, [on-line]; Internet; http://www.transcom.mil/missions/mission.html, 1.

[102] Donald H. Rumsfeld, Remarks to the National Defense University, 31 Jan 02.

According to Secretary Rumfeld, "transformation is a process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organizations that exploit our nation's advantages an protect against our asymmetric vulnerabilities to sustain our strategic position, which helps underpin peace and stability in the world."[103] Douglas J. Feith, Under Secretary of Defense, defines the transformation of US global defense posture as:

"We want to make our forces more responsive given the world's many strategic uncertainties. We want to make our military presence increasingly rotational with the emphasis, …on the capabilities of forces rather than their numbers. We want to benefit as much as possible from the strategic pre-positioning of equipment and support. We want to make better use of our capabilities by thinking of our forces globally, rather than as simply regional assets. We want to be able to bring more combat capabilities to bear in less time, that is, we want to have the ability to surge our forces to crisis spots from wherever our forces might be."[104]

The Quadrennial Defense Review (QDR) 2002 offers the following guidance with respect to employment of military forces:

> "[R]ests on the assumption that US forces have the ability to project power worldwide. The United States must retain the capability to send well-armed and logistically supported forces to critical points around the globe, even in the face of enemy opposition, or to locations where the support infrastructure is lacking or has collapsed. For US forces to gain the advantage in such situations, they must have the ability to arrive quickly at non-traditional points of debarkation to mass fire against an alerted enemy and to mask their own movements to deceive the enemy and bypass its defenses."[105]

This chapter answers the questions addressed in Chapter 1, posing the relevancy of pre-positioning programs by providing conclusions to the information provided in chapter 2 through 5.

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[103]Donald H. Rumsfeld, *"Transformation Planning guidance"*, April 2003, available from http://www.defenselink.mil.

[104]Douglas J. Feith, *"Transforming the US Global Defense Posture"*, Department of Defense Speeches, available from http://www.defenselink.mil/speeches/2003/, 3 Dec 2003.

Lastly, it makes recommendations for how DOD can expand the current pre-positioning program to make it a more viable program.

First task is to address several of the compelling questions with the relevancy of pre-positioning program. Does pre-positioning provide a means to reduce strategic air- and sealift requirements? Chapter 2 clearly illustrated the gross differences between the total number of aircraft and sealift required to deploy the 3rd ID (M), who drew pre-positioned stocks, compared to the same assets needed to deploy four other divisions, who did not draw pre-position equipment or materiel. Do the pre-positioning programs meet the intent of power projection and are the springboards for deployments? The Army and the Marine Corps' pre-positioning programs are examples for projecting units with or designed to fall-in on equipment pre-positioned forward. Both the Army and the Marines, as illustrated in Chapter 4, use pre-positioning to serve as a means to project power, but their techniques and employment strategies mirrored Cold War strategies. Post-9/11 and NSS of 2002 calls for a more expeditionary capability, that is more modular, easier to deploy and quicker to employ. Although the bases are few, the Air Force is entrenched into large, permanent bases; strategies also based on the containment strategy of the Cold War. The Navy is by design forward deployed. However, the fact they only pre-position munitions and operate hospitals in support of the Marines make them less effective as a power projection platform. OIF illustrated the ***power*** in power projection by closing an Army and a Marine division in less than thirty days. Can these pre-positioning programs transcend the maelstrom of transformation? The answer is definitely yes. Under the direction of the Secretary of Defense, each Service has proposed methods, techniques and requirements to make their existing pre-positioning programs more adaptable, tailorable, scalable, versatile, rapidly deployable and employable, and easier to sustain. Lastly, are there existing training programs to properly train each of the military services in the employment of pre-position equipment, materiel, or as in the case of the Air Force WRM, and/or their existing joint training exercises

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[105]QDR, 43.

in which the pre-positioned capabilities of the Military Services test interoperability? As illustrated in Chapter 5, there are few examples where the Army and the Marines exercise the use of their pre-positioning programs. Equally, there rare examples of joint Service related exercises designed to train the use of pre-positioned equipment and supplies. Unequivocally, this is the area that needs the most attention.

Given these conclusions, the following are a few recommendations for transforming the current pre-positioning programs outlined in this monograph. Although pre-positioning equipment and materiel, WRM, and materiel in forward bases or afloat was a means to reduce strategic lift resources, it does not do enough to make them expeditionary. The Joint Operations Concepts provides a framework for making the following recommendation:

Fully integrated, with all functions and capabilities focused toward a unified purpose.

Joint pre-positioning begins with developing common systems. From the identification of common-user items and parts, to procedures for requisitioning and receiving parts, to asset visibility, to over all theater distribution systems, DOD must resource ways to integrate the military forces with common-user equipment, communications and sustainment practices. Logistics of the future, just as in the past, will continue to play a crucial role in our nation's force projection capability. The ability of the nation to project and sustain power in the future will require a fusion of information, logistics, and transportation technologies to provide rapid crisis response, track and shift assets even while en route, and deliver tailored logistics packages and sustainment directly at the strategic, operational, and tactical levels of operation.[106] USTRANSCOM will have to worked closely with the Defense Logistics Agency to synchronize commodity management with strategic mobility. Pre-positioning programs have to be "plug

[106]USTRANSCOM Homepage, [on-line]; available from http://www.transcom.mil/factsheet.html.

and play" or they lose their value in deployment and employment activities. As stated in Chapter 4, the military services' pre-positioning programs were too "stove-piped". Perhaps by directing the Defense Logistics Agency to take the lead for integrating Joint Pre-positioned programs would create programs that are more joint-like. DOD must field all pre-positioning programs to its authorized levels and with the most modern equipment, or at least with equipment that is as modern as that equipment at home station. DOD can maximize training of personnel, fine tune procedures for using pre-position assets, maintain facilities and equipment, and refine joint doctrine by exploiting the development geographic hub from which to rotate Army, Air force, Marine Corps and Navy forces.

Rapidly deployable, employable, and sustainable throughout the global battlespace regardless of anti-access or area denial environments.

The Army needs to realign its pre-positioning program from four to three land-based pre-positioning sites and from one pre-position afloat set to three Army Regional Flotillas. No matter how the sets are numerically identified, (i.e., APS 1-6, or APS 1-3 and ARF I- III), the transition in stationing strategy needs to provide a mix of equipment and materiel to accommodate both MCO and military operations other than war (MOOTW), thus providing the RCC with a range of flexible options from which to choose. This new design will also provide forward-based, self-contained/self-supporting brigade combat teams. Since current funding levels may make it cost prohibitive to add a Stryker Brigade/Objective Force (SBCT/OF) into a pre-position set, the Army could help reduce the strategic airlift requirements by simply placing some or all of the CS/CSS required to support SBCT/OF.

Unlike the 2 X 2 battalion task force structures, the new concept focuses on smaller, modular, and easier to deploy forces, each capable of drawing any one of the pre-positioned sets. As the Army transitions to the new design, it would be a good time to consider adding special operations-specific equipment and/pre-positioned materiel. Maintaining three-region strategy for the ARF supports the

objective to provide operational reach from strategic distances, enhances the Army's ability to deploy five divisions in thirty days, and provides support in anti-access/area denial areas. The endstate of this recommendation is to redesign the Army's pre-positioning program to mirror the Marine Corps' ENS concept. The Air Force could consider reducing its strategic airlift requirements by simply relocating some of its Bare Base (Harvest BEAR and Harvest EAGLE) equipment and other WRM items either in newly identified FOLs or afloat pre-positioned ships.

DOD needs to accelerate research and development of the MPF(F) and the Navy's ENS Program, and use it as the model for changing the way DoD executes war in a theater of operation. Incorporating afloat capabilities into the ENS would increase responsiveness, flexibility, and survivability in sever anti-access environments.

Operations in Bosnia, Desert Shield and Storm, Operation Enduring Freedom and Operation Iraqi Freedom are recent examples the Military Services and DLA have had successes with the use of pre-positioning programs. As our national leaders deal with undefined threats and as globalization continues to spell uncertainty, now is the time to change the way we prosecute wars. DOD must remain vigilant in it ability to provide strategic responsiveness and transforming the way we resource and employ our pre-positioning programs is way to achieve that endstate. Pre-positioning is an integral part of our National Military Strategy. Not only does it provide a power projection capability, it also provides the RCC with a full spectrum of military options. Whether fighting major combat operations or providing humanitarian assistance, DOD's Pre-positioned Force will serve as a springboard for deployments.

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